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EXAMINER

PARSLEY, DAVID J

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,523

Applicant(s)

LEE, KOK-MENG

Examiner

David J Parsley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 and 36-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 19-35 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-23-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Preliminary Amendment

1. Entry of applicant's preliminary amendment dated 3-4-04 into the application file is acknowledged.

Election/Restrictions

2. Applicant's election with traverse of Group I in the reply filed on 11-17-04 is acknowledged. The traversal is on the ground(s) that the search and examination of Groups I and II would not create a serious burden on the examiner. This is not found persuasive because as seen in the restriction requirement dated 10-1-04, Group I is classified in a different subclass as that of Group II and therefore would require are more burdensome search to examine both of Groups I and II together. The requirement is still deemed proper and is therefore made FINAL.

Applicant's election with traverse of Group I in the reply filed on 11-17-04 is acknowledged. The traversal is on the ground(s) that the search and examination of Groups I and III would not create a serious burden on the examiner. Applicant's arguments are persuasive in that the device of Group III is also claimed in claims 11-12 of Group I and therefore a search for Group I would entail a similar search to that of Group III. Therefore, the restriction requirement between Groups I and III is withdrawn and both of Groups I and III are examined as set forth in this office action as seen below.

Claims 16-18 and 36-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention Group II, Group IV and Group V, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11-17-04.

Drawings

3. Color photographs and color drawings are acceptable only for examination purposes unless a petition filed under 37 CFR 1.84(a)(2) is granted permitting their use as acceptable drawings. In the event that applicant wishes to use the drawings currently on file as acceptable drawings, a petition must be filed for acceptance of the color photographs or color drawings as acceptable drawings. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings have been satisfied.

Claim Objections

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4. Claim 35 is objected to because of the following informalities: the claim should end in a
- - - -. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10, 12, 25-28 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10, 25-28 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims include limitations regarding x and z axes but it is unclear to exactly where these axes are in relation to the claimed device.

Claim 10 recites the limitation "the x-translational speed" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the perch bar declines under the shackle" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "the x-translational direction" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,259,811 to Berry.

Referring to claim 1, Berry discloses a device for grasping and supporting a live object, the device comprising, a pair of counter rotating supporting structures – at 12-14, each supporting structure including an upper portion and a lower portion – see for example figures 2-4, and wherein the upper portion and the lower portion each include a plurality of apertures disposed therein – see in item 27 in figures 3-4, a compliant finger – at 28, disposed within each of the plurality of apertures – see for example figures 2-4, the pair of counter rotating supporting structures are further configured to provide an opening for receiving the live object and wherein the compliant fingers are further configured to support and constrain a body of the live object – see for example figures 5a-5d, and a speed control module for controlling the speed and timing of the rotation of the supporting structures – see for example column 3 lines 29-68, column 4 lines 1-40 and lines 58-68, column 5 lines 1-68 and column 6 lines 1-21.

Referring to claim 3, Berry discloses the lower portion of the supporting structure is further configured to include at least three compliant fingers each disposed in an individual

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aperture for supporting a body of the live object – see for example the lower half of item 27 in figures 2-4.

Referring to claim 4, Berry discloses the upper portion of the supporting structure is further configured to include at least two compliant fingers for constraining the body of the live object from above – see at the upper portion of item 27 in figures 2-5.

Referring to claim 5, Berry discloses the three compliant fingers each disposed in an aperture in the lower portion of the supporting structure further comprises a first finger of a first length, a second finger of a second length and a third finger of a third length – see for example items – 28 in figures 2-5.

Referring to claim 6, Berry discloses the two compliant fingers each disposed in an aperture in the upper portion of the supporting structure further comprises a fourth finger of a fourth length and a fifth finger of a fifth length – see at items 28 in figures 2-5.

Referring to claim 7, Berry discloses the compliant fingers disposed in the plurality of apertures in the upper section of the supporting structure – at 27, incline downward – see for example figures 2-4, and the compliant fingers disposed in the plurality of apertures in the lower portion of the supporting structure incline upward – see for example at items 12-13 in figures 1-2 where the fingers on the left side of the supporting structure are inclined upward in the direction of the inclined conveyor – at 18,20.

Referring to claim 8, Berry discloses the fingers are of a rubber material – see for example column 4 lines 23-26.

Referring to claim 9, Berry discloses the speed control module is further configured to synchronize the rotation of the supporting structures – at 12-14, with a conveyor – at 18 and/or

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24, transporting the live object – see for example figures 1-5, column 3 lines 29-68, column 4 lines 1-40 and lines 58-68, column 5 lines 1-68 and column 6 lines 1-21.

Referring to claim 10, Berry discloses the speed control module is further configured to vary the x-translational speed of the live object while constraining the body in the compliant fingers – see for example figures 1-5, column 3 lines 29-68, column 4 lines 1-40 and lines 58-68, column 5 lines 1-68 and column 6 lines 1-21.

Referring to claim 15, Berry discloses the pair of counter rotating supporting structures – at 12-14, are further configured to rotate at the same speed – see for example, column 3 lines 29-68, column 4 lines 1-40 and lines 58-68, column 5 lines 1-68 and column 6 lines 1-21.

Claims 1, 10-11 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,514,033 to Berry.

Referring to claim 1, Berry '033 discloses a device for grasping and supporting a live object, the device comprising, a pair of counter rotating supporting structures – at 306,307, each supporting structure including an upper portion and a lower portion – see for example 13 of Berry '811 incorporated by reference, and wherein the upper portion and the lower portion each include a plurality of apertures disposed therein – see in item 319 in figure 13 of Berry '911, a compliant finger – see figure 13, disposed within each of the plurality of apertures – see for example figure 13, the pair of counter rotating supporting structures are further configured to provide an opening for receiving the live object and wherein the compliant fingers are further configured to support and constrain a body of the live object – see for example figure 13, and a speed control module for controlling the speed and timing of the rotation of the supporting structures – see for example columns 6-7.

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Referring to claim 10, Berry '033 discloses the speed control module is further configured to vary the x-translational speed of the live object while constraining the body in the compliant fingers – see for example column 3 lines 29-68, column 4 lines 1-40 and lines 58-68, column 5 lines 1-68 and columns 6-7.

Referring to claim 11, Berry '033, discloses a conveyor – see figure 8, for transporting the live object towards the pair of counter rotating supporting structures – at 30 in figure 8, the conveyor further comprises a pallet assembly 19, 19', having a perch bar – at 23', 24', 25', movably fixed to the conveyor and wherein the perch bar is configured to receive the live object – see for example figures 1-7.

Referring to claim 13, Berry '033 discloses the speed control module controls the timing of the rotation of the supporting structures such that the rotation of the supporting structures is synchronized with the movement of the pallet assemblies – see for example figures 1-8 and column 3 lines 1-40.

Referring to claim 14, Berry '033 discloses the speed control module controls the timing of the rotation of the supporting structures in relation to the speed of the conveyor such that the rotation of the supporting structures moves the live object from the compliant fingers of the pair of counter rotating supporting structures at a specified rate – see for example figures 1-8 and column 3 lines 1-40.

Claims 19-20, 22-27, 29, 33-35 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,658,476 to van den Brink.

Referring to claim 19, van den Brink discloses a device for receiving an isolated live object the device comprising, a rigid member – at 30-57, having a first end, a second end and a

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middle section – see for example figures 4-10, the middle section being disposed between the first end and the second end – see figures 4-10, and perch bars – at 44-48, flexibly affixed (items 47 and 48) to the middle section of the rigid member – see for example figures 4-5.

Referring to claim 20, van den Brink discloses the perch bars are cylindrically shaped – at 47,48 and are configured to include longitudinal grooves – at 44,45.

Referring to claims 22 and 33, van den Brink discloses a system comprising, a pallet assembly – at 30-48, having a perch bar supporting structure – at 38, the perch bar supporting structure including perch bars – at 44,45, a shackle assembly – at 59, movably affixed to the pallet assembly – see for example figure 11, the shackle assembly comprising a pair of compliant grippers – at 62,63, a trap bar assembly – at 47,48, the trap bar assembly affixed to the pallet assembly – see for example figures 4-5, a shackle control mechanism – at 3-5,52-57 and 61, affixed to the shackle assembly, the shackle control mechanism configured to lock and release the shackle assembly from the pallet assembly – see for example figures 10-11, and a trolley affixed to the pallet assembly – see for example at the upper end of 54 in figures 10-11.

Referring to claim 23, van den Brink discloses the pallet assembly is configured to include rollers – at 32,33, for traversing on a conveyor – at 31-33, the pallet assembly further being configured to travel along a separate track of the conveyor from a track of the conveyor utilized by the trolley – see for example figure 2.

Referring to claim 24, van den Brink discloses the conveyor further comprises a drop cam – see for example column 4 lines 8-14.

Referring to claim 25, van den Brink discloses the trolley is configured to move along the drop cam in a z-translational direction while continuing to travel in a x-translational direction – see for example figures 10-11.

Referring to claim 26, van den Brink discloses the shackle control mechanism further comprises a shackle stopper – at 4,52,57, and a shackle releaser – at 5, wherein the shackle stopper and the shackle releaser provide for a move or stop control in both an x and z direction – see for example figures 1-11.

Referring to claim 27, van den Brink discloses the shackle assembly further comprises a shackle and an x-translational guide – see at the upper end of 59 in figure 11, the x-translational guide configured to provide for forward and backward movement of the shackle in the x-translational direction relative to the pallet assembly, the movement of the shackle in the z-direction to stay above the pallet assembly when the trolley of the pallet assembly moves along the drop cam – see for example figures 1-11.

Referring to claim 29, van den Brink discloses a back panel affixed to a rear portion of the pallet assembly – see at 34,36 in figure 10.

Referring to claim 34, van den Brink discloses an inverter portion – see for example figures 10-11, that follows an inversion path for inverting the isolated live object shackled in the shackle assembly – see for example figures 10-11.

Referring to claim 35, van den Brink discloses the first speed control module and the second speed control module add claim to a speed profile – see for example columns 4-7.

Referring to claim 45, van den Brink discloses a feet gripping system comprising, a perch bar – at 44,45, having a z-direction compliance, the z-direction being a direction along a

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superior-inferior axis of a live object – see for example figures 4-5, the perch bar being configured to support a live object – see for example figures 4-5, grippers – at 47,48, having a y-direction compliance, the y-direction being a direction along a lateral axis of the live object, the grippers being configured to support the live object – see for example figures 4-5, and a first assembly comprising a spring – see column 4 lines 50-67, the first assembly having an x-direction compliance, the x-direction being a direction along an anterior-posterior axis of the live object – see for example figures 1-11.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berry as applied to claim 1 above. Berry does not disclose each compliant finger has a structural rigidity between 0.08Nm^2 and approximately 0.35Nm^2 . However, it would have been obvious to one of ordinary skill in the art to take the device of Berry and add the structural rigidity of the fingers as being between 0.08Nm^2 and approximately 0.35Nm^2 , so as to allow for the fingers to not damage the live objects during use. Further, applicant offers no specific details in the specification stating that the range of values for the structural rigidity of the fingers, solves any particular problems or is done for any particular reason over differing structural rigidity values.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berry '033 as applied to claim 11 above, and further in view of van den Brink.

Referring to claim 12, Berry '033 discloses a shackle – at 19', affixed to the perch bar, the shackle having a pair of grippers – at 26', 27', for gripping extending legs of the live object. Berry '033 does not disclose when the perch bar declines under the shackle, the set of compliant fingers of the pair of counter rotating supporting structures constrains the live object therein. Van den Brink does disclose when the perch bar – at 60, 61, declines under the shackle – at 59, the set of compliant fingers – at 55, of the pair of counter rotating supporting structures – at the end portions of items 55 connected to the pins in item 61, constrains the live object therein – see for example figure 11. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Berry '033 and add the perch bar and shackle of van den Brink, so as to allow for the live object to be securely held during transfers to other conveyors for further processing.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over van den Brink as applied to claim 19 above. Van den Brink does not disclose the perch bar is covered with rubber. However, it would have been obvious to one of ordinary skill in the art to take the device of van den Brink and add the perch bar covered with rubber, so as to protect the live object in that it contacts the softer rubber material.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over van den Brink as applied to claim 22 above, and further in view of U.S. Patent No. 6,561,555 to Millard. van den Brink further discloses the trap bar assembly – at 47, 48, is configured to rotate along an axis that is fixed with respect to the pallet – see for example figures 1-11. Van den Brink does not disclose the trap bar assembly comprises a magnetic lock a roller and a cam. Millard does disclose the

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trap bar assembly – at 16, has a magnetic lock – at 18, a roller – at 32 and a cam – see for example column 1 lines 48-64. Therefore it would have been obvious to one of ordinary skill in the art to take the device of van den Brink and add the magnetic lock of Millard, so as to securely hold the trap bar assembly in place.

Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over van den Brink as applied to claim 22 above, and further in view of Berry '811.

Referring to claims 31-32, Van den Brink does not disclose a pair of counter rotating supporting structures each supporting structure including an upper portion and a lower portion and wherein the upper portion and the lower portion each include a plurality of apertures disposed therein a compliant finger disposed within each of the plurality of apertures the pair of counter rotating supporting structures are further configured to provide an opening for receiving the live object and wherein the compliant fingers are further configured to support and constrain a body of the live object. Berry '811 does disclose a pair of counter rotating supporting structures – at 12-14, each supporting structure including an upper portion and a lower portion – see for example figures 2-4, and wherein the upper portion and the lower portion each include a plurality of apertures disposed therein – see in item 27 in figures 3-4, a compliant finger – at 28, disposed within each of the plurality of apertures – see for example figures 2-4, the pair of counter rotating supporting structures are further configured to provide an opening for receiving the live object and wherein the compliant fingers are further configured to support and constrain a body of the live object – see for example figures 5a-5d, and a speed control module for controlling the speed and timing of the rotation of the supporting structures – see for example column 3 lines 29-68, column 4 lines 1-40 and lines 58-68, column 5 lines 1-68 and column 6 lines 1-21. Therefore it

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would have been obvious to one of ordinary skill in the art to take the device of van den Brink and add the rotating support structures of Berry '811, so as to allow for the orientation of the live object to be proper for further processing/conveying.

Allowable Subject Matter

8. Claim 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to conveying and preparing live animals to slaughter in general:

U.S. Pat. No. 3,106,744 to Gillman – shows transporting live animals to slaughter

U.S. Pat. No. 3,571,844 to Stiles – shows shackle assembly

U.S. Pat. No. 4,272,863 to Parker – shows shackle assembly

U.S. Pat. No. 5,189,677 to Christensen et al. – shows conveying live animals

U.S. Pat. No. 5,195,925 to Gorans – shows conveying live animals

U.S. Pat. No. 5,290,187 to Meyn – shows shackle assembly

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U.S. Pat. No. 5,340,355 to Meyn – shows rotatable gripping structures

U.S. Pat. No. 5,487,699 to Tyrrell et al. – shows conveying live animals


U.S. Pat. No. 6,056,637 to Freeland et al. – shows conveying live animals


EP Pat. No. 0533288 – shows pallet assembly

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J Parsley whose telephone number is (703) 306-0552. The examiner can normally be reached on 9hr compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (703) 308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Parsley
Patent Examiner
Art Unit 3643


PETER M. POON
SUPERVISORY PATENT EXAMINER
1/18/15